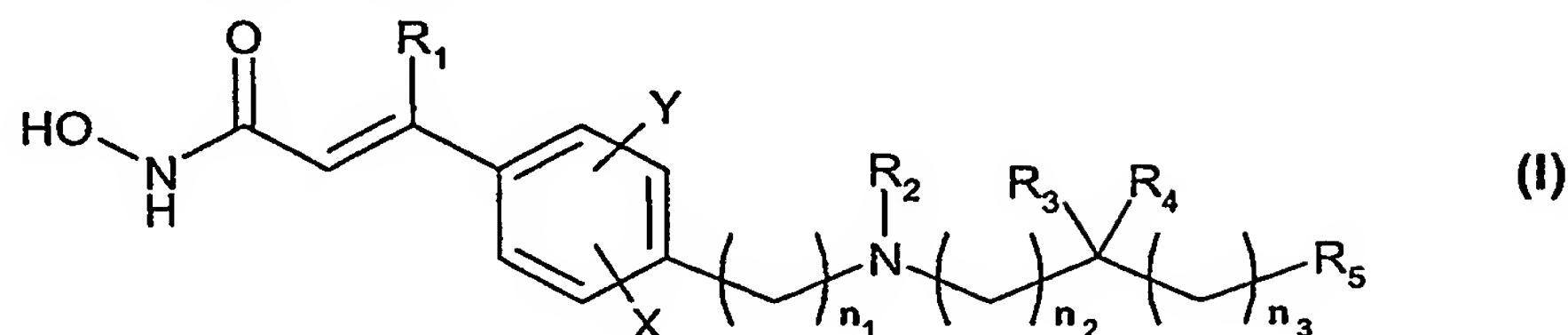


What is claimed is:

1. A combination comprising
  - (a) death receptor ligand, and
  - (b) a histone deacetylase inhibitor of formula (I)



wherein

$R_1$  is H; halo; or a straight-chain  $C_1$ - $C_6$ alkyl, especially methyl, ethyl or *n*-propyl, which methyl, ethyl and *n*-propyl substituents are unsubstituted or substituted by one or more substituents described below for alkyl substituents;

$R_2$  is selected from H;  $C_1$ - $C_{10}$ alkyl, preferably  $C_1$ - $C_6$ alkyl, e.g., methyl, ethyl or  $-CH_2CH_2-OH$ ;  $C_4$ - $C_9$ cycloalkyl;  $C_4$ - $C_9$ heterocycloalkyl;  $C_4$ - $C_9$ heterocycloalkylalkyl; cycloalkylalkyl, e.g., cyclopropylmethyl; aryl; heteroaryl; arylalkyl, e.g., benzyl; heteroarylalkyl, e.g., pyridylmethyl;  $-(CH_2)_nC(O)R_6$ ;  $-(CH_2)_nOC(O)R_6$ ; amino acyl;  $HON-C(O)-CH=C(R_1)$ -aryl-alkyl-; and  $-(CH_2)_nR_7$ ;

$R_3$  and  $R_4$  are the same or different and, independently, H;  $C_1$ - $C_6$ alkyl; acyl; or acylamino; or

$R_3$  and  $R_4$ , together with the carbon to which they are bound, represent  $C=O$ ,  $C=S$  or  $C=NR_8$ ; or

$R_2$ , together with the nitrogen to which it is bound, and  $R_3$ , together with the carbon to which it is bound, can form a  $C_4$ - $C_9$ heterocycloalkyl; a heteroaryl; a polyheteroaryl; a non-aromatic polyheterocycle; or a mixed aryl and non-aryl polyheterocycle ring;

$R_5$  is selected from H;  $C_1$ - $C_6$ alkyl;  $C_4$ - $C_9$ cycloalkyl;  $C_4$ - $C_9$ heterocycloalkyl; acyl; aryl; heteroaryl; arylalkyl, e.g., benzyl; heteroarylalkyl, e.g., pyridylmethyl; aromatic polycycles; non-aromatic polycycles; mixed aryl and non-aryl polycycles; polyheteroaryl; non-aromatic polyheterocycles; and mixed aryl and non-aryl polyheterocycles;

$n$ ,  $n_1$ ,  $n_2$  and  $n_3$  are the same or different and independently selected from 0-6, when  $n_1$  is 1-6, each carbon atom can be optionally and independently substituted with  $R_3$  and/or  $R_4$ ;

X and Y are the same or different and independently selected from H; halo; C<sub>1</sub>-C<sub>4</sub>alkyl, such as CH<sub>3</sub> and CF<sub>3</sub>; NO<sub>2</sub>; C(O)R<sub>1</sub>; OR<sub>9</sub>; SR<sub>9</sub>; CN; and NR<sub>10</sub>R<sub>11</sub>;

R<sub>6</sub> is selected from H; C<sub>1</sub>-C<sub>6</sub>alkyl; C<sub>4</sub>-C<sub>9</sub>cycloalkyl; C<sub>4</sub>-C<sub>9</sub>heterocycloalkyl; cycloalkylalkyl, e.g., cyclopropylmethyl; aryl; heteroaryl; arylalkyl, e.g., benzyl and 2-phenylethenyl; heteroarylalkyl, e.g., pyridylmethyl; OR<sub>12</sub>; and NR<sub>13</sub>R<sub>14</sub>;

R<sub>7</sub> is selected from OR<sub>15</sub>; SR<sub>15</sub>; S(O)R<sub>16</sub>; SO<sub>2</sub>R<sub>17</sub>; NR<sub>13</sub>R<sub>14</sub>; and NR<sub>12</sub>SO<sub>2</sub>R<sub>6</sub>;

R<sub>8</sub> is selected from H; OR<sub>15</sub>; NR<sub>13</sub>R<sub>14</sub>; C<sub>1</sub>-C<sub>6</sub>alkyl; C<sub>4</sub>-C<sub>9</sub>cycloalkyl; C<sub>4</sub>-C<sub>9</sub>heterocycloalkyl; aryl; heteroaryl; arylalkyl, e.g., benzyl; and heteroarylalkyl, e.g., pyridylmethyl;

R<sub>9</sub> is selected from C<sub>1</sub>-C<sub>4</sub>alkyl, e.g., CH<sub>3</sub> and CF<sub>3</sub>; C(O)-alkyl, e.g., C(O)CH<sub>3</sub>; and C(O)CF<sub>3</sub>;

R<sub>10</sub> and R<sub>11</sub> are the same or different and independently selected from H; C<sub>1</sub>-C<sub>4</sub>alkyl; and -C(O)-alkyl;

R<sub>12</sub> is selected from H; C<sub>1</sub>-C<sub>6</sub>alkyl; C<sub>4</sub>-C<sub>9</sub>cycloalkyl; C<sub>4</sub>-C<sub>9</sub>heterocycloalkyl; C<sub>4</sub>-C<sub>9</sub>heterocycloalkylalkyl; aryl; mixed aryl and non-aryl polycycle; heteroaryl; arylalkyl, e.g., benzyl; and heteroarylalkyl, e.g., pyridylmethyl;

R<sub>13</sub> and R<sub>14</sub> are the same or different and independently selected from H; C<sub>1</sub>-C<sub>6</sub>alkyl; C<sub>4</sub>-C<sub>9</sub>cycloalkyl; C<sub>4</sub>-C<sub>9</sub>heterocycloalkyl; aryl; heteroaryl; arylalkyl, e.g., benzyl; heteroarylalkyl, e.g., pyridylmethyl; amino acyl; or

R<sub>13</sub> and R<sub>14</sub>, together with the nitrogen to which they are bound, are C<sub>4</sub>-C<sub>9</sub>heterocycloalkyl; heteroaryl; polyheteroaryl; non-aromatic polyheterocycle; or mixed aryl and non-aryl polyheterocycle;

R<sub>15</sub> is selected from H; C<sub>1</sub>-C<sub>6</sub>alkyl; C<sub>4</sub>-C<sub>9</sub>cycloalkyl; C<sub>4</sub>-C<sub>9</sub>heterocycloalkyl; aryl; heteroaryl; arylalkyl; heteroarylalkyl; and (CH<sub>2</sub>)<sub>m</sub>ZR<sub>12</sub>;

R<sub>16</sub> is selected from C<sub>1</sub>-C<sub>6</sub>alkyl; C<sub>4</sub>-C<sub>9</sub>cycloalkyl; C<sub>4</sub>-C<sub>9</sub>heterocycloalkyl; aryl; heteroaryl; polyheteroaryl; arylalkyl; heteroarylalkyl; and (CH<sub>2</sub>)<sub>m</sub>ZR<sub>12</sub>;

R<sub>17</sub> is selected from C<sub>1</sub>-C<sub>6</sub>alkyl; C<sub>4</sub>-C<sub>9</sub>cycloalkyl; C<sub>4</sub>-C<sub>9</sub>heterocycloalkyl; aryl; aromatic polycycles; heteroaryl; arylalkyl; heteroarylalkyl; polyheteroaryl and NR<sub>13</sub>R<sub>14</sub>;

m is an integer selected from 0-6; and

Z is selected from O; NR<sub>13</sub>; S; and S(O),

or a pharmaceutically acceptable salt thereof.

2. A method for the prevention or treatment of proliferative diseases, in a mammal, which comprises treating the mammal with pharmaceutically effective amounts of a combination of:
  - (a) death receptor ligand, and
  - (b) a histone deacetylase inhibitor of formula (I) according to claim 1.
3. The combination according to Claim 1, wherein the death receptor ligand is TRAIL, TRAIL/Apo-2L, TRAIL mimetics, agonistic antibodies, or other agents that can bind to DR4 and DR5 triggering the activity of caspase-8 and apoptosis through the assembly of a cell-membrane associated multi-protein death inducing signaling complex (DISC).
4. The combination of Claim 1, wherein the HDAl is selected from the group consisting of *N*-hydroxy-3-[4-[[[(2-hydroxyethyl)[2-(1*H*-indol-3-yl)ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide, *N*-hydroxy-3-[4-[[[2-(1*H*-indol-3-yl)ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide and *N*-hydroxy-3-[4-[[[2-(2-methyl-1*H*-indol-3-yl)-ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide, or a pharmaceutically acceptable salt thereof.
5. The combination of Claim 1 for the prevention or treatment of leukemia.
6. The method of Claim 2, wherein the mammal is a human.
7. The combination of Claim 1 for the prevention or treatment of acute myeloid leukemia (AML).
8. A combined preparation which comprises:
  - (a) one or more unit dosage forms of a death receptor ligand; and
  - (b) one or more unit dosage forms of a HDAl of formula (I) of Claim 1.
9. The combined preparation according to Claim 8, wherein the death receptor ligand is TRAIL, TRAIL/Apo-2L, TRAIL mimetics, agonistic antibodies, or other agents that can bind to DR4 and DR5 triggering the activity of caspase-8 and apoptosis through the assembly of a cell-membrane associated multi-protein DISC.
10. The combined preparation of Claim 9, wherein the histone deacetylase inhibitor is selected from the group consisting of *N*-hydroxy-3-[4-[[[(2-hydroxyethyl)[2-(1*H*-indol-3-

yl)ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide, *N*-hydroxy-3-[4-[[[2-(1*H*-indol-3-yl)ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide and *N*-hydroxy-3-[4-[[[2-(2-methyl-1*H*-indol-3-yl)-ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide, or a pharmaceutically acceptable salt thereof.

11. A method of treating or preventing premalignant proliferative diseases in a mammal which comprises treating the mammal with a combination of:

- (a) a pharmaceutically effective amount of a death receptor ligand; and
- (b) a pharmaceutically effective amount of *N*-hydroxy-3-[4-[[[2-(2-hydroxyethyl)[2-(1*H*-indol-3-yl)ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide, *N*-hydroxy-3-[4-[[[2-(1*H*-indol-3-yl)ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide or *N*-hydroxy-3-[4-[[[2-(2-methyl-1*H*-indol-3-yl)-ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide; or a pharmaceutically effective salt thereof.

12. The method according to Claim 11, wherein the death receptor ligand is TRAIL, TRAIL/Apo-2L, TRAIL mimetics, agonistic antibodies, or other agents that can bind to DR4 and DR5 triggering the activity of caspase-8 and apoptosis through the assembly of a cell-membrane associated multi-protein DISC.

13. A method of treating or preventing proliferative diseases in a mammal which comprises treating the mammal with a combination of:

- (a) a pharmaceutically effective amount of a death receptor ligand; and
- (b) a pharmaceutically effective amount of an HDAI.

14. A combined preparation which comprises:

- (a) one or more unit dosage forms of a death receptor ligand; and
- (b) one or more unit dosage forms of a HDAI.